IT Unit 3

Topic 2

# Ch 3, Data Analytics: Drawing Conclusions, Part 2

**Digital systems**, 165-170

**Digital systems** (Informatics, p 165)

1. What are the components of an information system?

* Hardware, software, people

1. What is a digital system?

* Hardware, software and people

1. Define hardware. Give some examples.

* Hardware enables users to input data or provide commands to software

1. What are the most common types of output hardware?

* Keyboards
* Mouse
* Touchscreen
* Flatbed Scanner
* Barcode Reader
* Graphic tablet and styles
* Custom input device (Game Controllers)

**Storage, p 167**

1. Distinguish between primary and secondary storage.

* R.A.M is composed of billions of storage locations in silicon chips, RAM stores programs instructions and data when programs are running, they loses all there data if it not connected to power.
* Secondary Storage options permanently store data, information and applications when there not being used. SS can either me stored on internal or external hardware were a internal requires power to access where is external is a output device that requires hardware and software to access.

1. Describe the characteristics of the following storage devices:
   1. Hard disk drive, HDD

* Very cheap per megabyte of capacity; still the largest, most reliable long term storage
* The disk on a hard drive can spin up to 10,000rpm
  1. Solid state drive, SSD
* Non-volatile memory similar to USB flash drive and SD cards
* Run silently, start instantly, generates less heat and use less electricity
* Tends to access data faster than a HHD
  1. Network-attached storage, NAS
* A network team off HDDS in a box
* Makes file sharing easier
* Convenient and reliable

Networks and communication, p 168

1. List the different types of network and communication hardware.

* **Ports**: are physical sockets that carry data between a computer and external devices.
* **Moderns**: convert digital data into analogue data for transmission over non digital media such as telephone lines, and converts incoming analogue data into digital data for the computer to use
* **Switches**: are boxes allow multiple networks cables to interconnect and exchange between networked devices.
* **Cables**: are used to connect two device, enable the transfer of signals form one device to another
* **Wireless Access Points**: Are devices used on wireless LANs. They act as central transmitters and receivers of wireless receiver of wireless radio signals and allow wireless devices such as phones or tablets to connect to the wired network.

**Software, p 169**

1. Define software.

* Software is programming code that code that controls hardware.

1. Distinguish between:
   1. Application software

* For example – a word processor – to do work for the user and create information.
  1. System software
* For example - for an operating system, device drivers – to control your hardware and allocate computer resources so application software can run.
  1. Utility software
* For example – a text editor – to provide a single, specific services to extend the functionality of a digital system.